

AMENDMENTS TO THE CLAIMS

Please amend claims 70, 71 and 73. Please cancel claim 72. Following is a complete listing of the claims pending in the application:

1-60. (Canceled).

61. (Previously Presented) A method of partially hydrogenating an unsaturated fat, comprising:

dispersing a nickel-based catalyst in an unsaturated edible oil, the edible oil having an initial Iodine Value and an initial fatty acid profile;

delivering hydrogen to the oil; and

hydrogenating the oil at a hydrogenation temperature no greater than about 75° C for a hydrogenation time to yield a partially hydrogenated fat having a modified Iodine Value and including a modified fatty acid profile, wherein the partially hydrogenated fat has a solid fat content of about 25-80 weight percent at 20° C, an absolute difference between the initial Iodine Value and the modified Iodine Value (dIV) divided by the hydrogenation time defines an average Iodine Value change rate of no less than about 5/hour, and no more than about 15 weight percent of the modified fatty acid profile comprises trans-fatty acids.

62. (Previously Presented) The method of claim 61 wherein the oil is at the hydrogenation temperature when initiating the hydrogenation and the oil is hydrogenated without adding external heat.

63. (Previously Presented) The method of claim 61 wherein hydrogen is delivered to the oil before dispersing the nickel-based catalyst in the oil.

64. (Previously Presented) The method of claim 61 wherein the hydrogenation temperature is no greater than about 60° C.

65. (Previously Presented) The method of claim 61 wherein the hydrogenation temperature is no greater than about 50° C.

66. (Previously Presented) The method of claim 61 wherein the hydrogenation temperature changes over the course of the hydrogenation time, the hydrogenation reaction being initiated at a hydrogenation temperature no greater than about 60° C.

67. (Previously Presented) The method of claim 61 wherein the average Iodine Value change rate is between about 6/hour and about 40/hour.

68. (Previously Presented) The method of claim 61 wherein delivering hydrogen to the oil comprises delivering a gas consisting essentially of hydrogen.

69. (Previously Presented) The method of claim 61 wherein a total trans-fatty acid increase is a difference between the weight percent of the trans-fatty acids in the modified fatty acid profile and an initial trans-fatty acid weight percent of the initial fatty acid profile, wherein the ratio of ΔIV to the trans-fatty acid increase is at least about 5.

70. (Currently amended) An edible fat composition ~~formed by the process of claim 64~~ comprising:

a partially hydrogenated fat having—

a solid fat content of about 20-80 weight percent at 20° C;

a trans-fatty acid content of no greater than about 15 weight percent of a fatty acid profile; and

an average Iodine Value change rate of no less than about 5/hour, wherein the average Iodine Value change rate is defined by the absolute difference between an initial Iodine Value of the fat prior to hydrogenation and a modified Iodine Value of the fat following hydrogenation divided by a hydrogenation time.

71. (Currently amended) A method of hydrogenating an edible oil having an initial solid fat content of less than 20 weight percent at 20°C, an initial Iodine Value, and an initial fatty acid profile, the method comprising:

providing a catalyst composition including a fat component and a nickel-based catalyst that has been heated to a first temperature;

dispersing the catalyst composition in the oil;

delivering hydrogen to the oil; and

hydrogenating the oil at a second temperature to yield a partially hydrogenated fat having a modified Iodine Value and including a modified fatty acid profile, wherein:

the second temperature is less than the first temperature;

dispersing the catalyst composition comprises contacting the oil with the catalyst composition, the catalyst composition being at a third temperature, the third temperature less than the first temperature and at least as great as a melting point of the fat composition;

the partially hydrogenated fat has a solid fat content of about 20-80 weight percent at 20° C;

an absolute difference between the initial Iodine Value and the modified Iodine Value (dIV) divided by the hydrogenation time defines an average Iodine Value change rate of about 6-40/hour; and

no more than about 15 weight percent of the modified fatty acid profile comprises trans-fatty acids.

72. (Cancelled) The method of claim 71 wherein dispersing the catalyst composition comprises contacting the catalyst composition, which is at a third temperature, with the oil, the third temperature being greater than the second temperature and at least as great as a melting point of the fat composition.

73. (Currently amended) An ~~The~~ edible fat composition formed by the process of claim 71 of claim 70 wherein the solid fat content is about 25-80 weight percent at 20° C, and wherein the average Iodine Value change rate is about 6-40/hour.

74. (Previously Presented) A partially hydrogenated fat selected from a group consisting of partially hydrogenated soybean oil and partially hydrogenated rapeseed oil, the partially hydrogenated fat having:

- a solid fat content of at least about 20 weight percent at 20° C;
- a trans-fatty acid content of about 4-20 weight percent of the fatty acid profile; and
- a ratio of C18 content to the trans-fatty acid content (C18 : TFA) of at least about one.

75. (Previously Presented) The partially hydrogenated fat of claim 74 wherein the trans-fatty acid content is no greater than about 10 weight percent.

76. (Previously Presented) The partially hydrogenated fat of claim 74 wherein the trans-fatty acid content is no greater than about 8 weight percent.

77. (Previously Presented) The partially hydrogenated fat of claim 74 wherein the C18 : TFA ratio is at least about two.

78. (Previously Presented) The partially hydrogenated fat of claim 74 wherein the C18 : TFA ratio is at least about 4.

79. (Previously Presented) The partially hydrogenated fat of claim 74 wherein a ratio of the solid fat content at 20° C to the trans-fatty acid content is at least about two.

80. (Previously Presented) The partially hydrogenated fat of claim 74 wherein a ratio of the solid fat content at 20° C to the trans-fatty acid content is at least about 4.

81. (Previously Presented) The partially hydrogenated fat of claim 74 wherein the partially hydrogenated oil had an initial Iodine Value prior to hydrogenation and the partially hydrogenated fat has a final Iodine Value, a ratio of the absolute value of a difference between the initial and final Iodine Values to the trans-fatty acid content is at least about 4.

82. (Previously Presented) A partially hydrogenated fat selected from a group consisting of partially hydrogenated soybean oil and partially hydrogenated rapeseed oil, the partially hydrogenated fat having:

- a solid fat content of about 20-80 weight percent at 20° C;
- a trans-fatty acid content of no greater than about 15 weight percent of the fatty acid profile; and
- a ratio of the solid fat content at 20° C to the trans-fatty acid content (SFC 20 : TFA) of at least about two.

83. (Previously Presented) The partially hydrogenated fat of claim 82 wherein the trans-fatty acid content is no greater than about 10 weight percent.

84. (Previously Presented) The partially hydrogenated fat of claim 82 wherein the trans-fatty acid content is no greater than about 8 weight percent.

85. (Previously Presented) The partially hydrogenated fat of claim 82 wherein the SFC 20 : TFA ratio is at least about 4.

86. (Previously Presented) The partially hydrogenated fat of claim 82 wherein the SFC 20 : TFA ratio is at least about 6.

87. (Previously Presented) The partially hydrogenated fat of claim 82 wherein a ratio of a cis-fatty acid content to the trans-fatty acid content is at least about 3.

88. (Previously Presented) The partially hydrogenated fat of claim 82 wherein a ratio of C18 content to the trans-fatty acid content is at least about two.

89. (Previously Presented) The partially hydrogenated fat of claim 82 wherein a ratio of C18 content to the trans-fatty acid content is at least about 4.

90. (Previously Presented) The partially hydrogenated fat of claim 74 wherein the solid fat content at 20° C is about 40-80 weight percent.

91. (Previously Presented) The partially hydrogenated fat of claim 90 wherein a ratio of the solid fat content at 20° C to the trans-fatty acid content is at least about 6.

92. (Previously Presented) The partially hydrogenated fat of claim 90 wherein a ratio of the solid fat content at 30° C to the trans-fatty acid content is at least about 3.

93. (Previously Presented) The partially hydrogenated fat of claim 90 wherein a ratio of a cis-fatty acid content to the trans-fatty acid content is at least about 3.

94. (Previously Presented) A partially hydrogenated fat selected from a group consisting of partially hydrogenated soybean oil, partially hydrogenated rapeseed oil, and partially hydrogenated sunflower oil, the partially hydrogenated fat having a fatty acid profile in which:

a solid fat content is about 40-80 weight percent at 20° C;

a trans-fatty acid content is no greater than about 15 weight percent; and

a ratio of C18 content to the trans-fatty acid content (C18 : TFA) is at least about two.

95. (Previously Presented) A partially hydrogenated palm fat having a fatty acid profile in which:

a solid fat content is about 40-80 weight percent at 20° C;

a trans-fatty acid content is no greater than about 10 weight percent; and

a ratio of the solid fat content at 20° C to the trans-fatty acid content (SFC 20 : TFA) is at least about 4.

96. (Previously Presented) A food product comprising the fat of claim 74.
97. (Previously Presented) A frying fat composition comprising the fat of claim 74.
98. (Previously Presented) A shortening composition comprising the fat of claim 74.
99. (Previously Presented) The shortening composition of claim 98 wherein the fat has a solid fat content at 20° C of at least about 40 weight percent, further comprising a liquid oil blended with the fat.
100. (Previously Presented) A margarine composition comprising water and the fat of claim 74.